Broadcast Pix

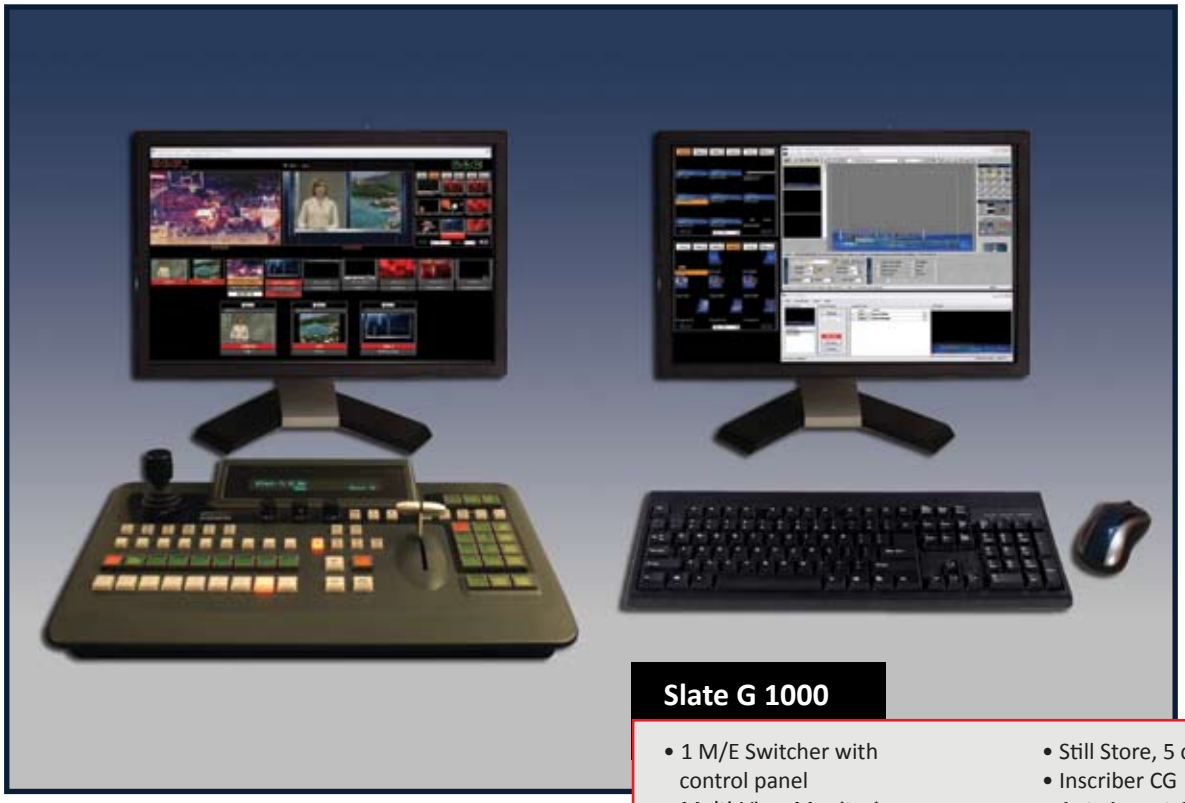
Create Compelling Live Video

■■■■■ *Cost-effectively*

Slate G Series

Live Integrated Production Systems

1080p
3G
Upgradeable



Slate G 1000

- 1 M/E Switcher with control panel
- Multi-View Monitoring
- Clip Store
- Still Store, 5 channels
- Inscriber CG
- AutoAspect 16:9 & 4:3

Slate G 2100 and 3000 add more I/O and fail-safe switching

Slate G 5000

- 2 M/E Switcher with large control panel
- Multi-View Monitoring
- Clip Store, 2 channels
- Still Store, 5 channels
- Inscriber CG
- AutoAspect 16:9 & 4:3

Create Compelling Live Video

Cost-effectively

Create Compelling Live Video…

Creating great looking live video used to mean assembling an expensive control room and hiring a big team to run it. Now, Slate creates compelling live video at a fraction of the cost.

Every Slate is an **integrated live video production system**. Each includes a production switcher, clip store, graphics stores, Inscriber character generator, comprehensive multi-view monitoring, Fluent workflow software, 16:9/4:3 aspect conversion and format conversion. Options extend control to robotic cameras and audio mixers. Choose an HD/SD model, SD only, analog or hybrid.

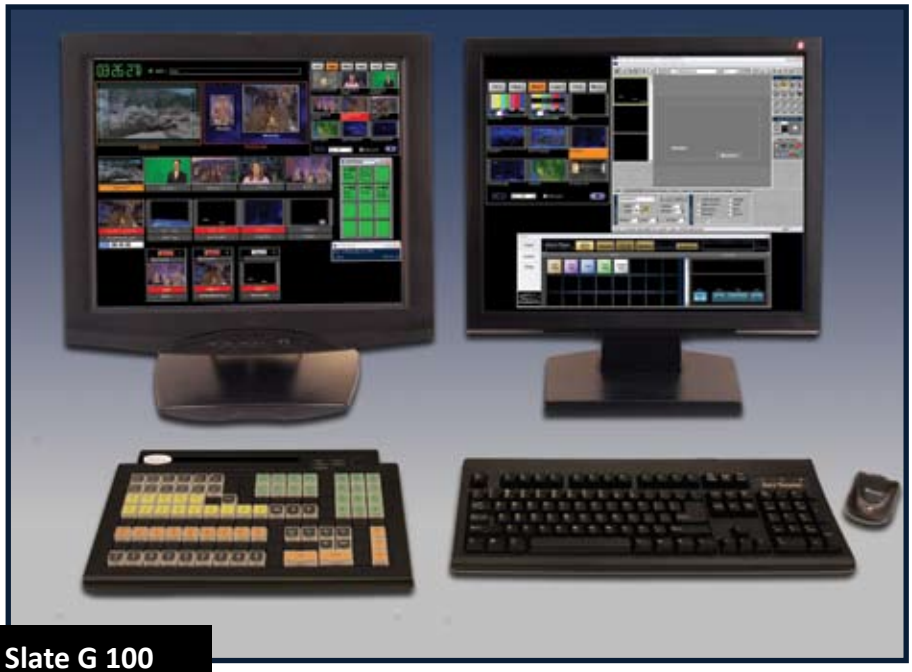
Slate **streamlines production workflow** thanks to its Fluent software, and to the tight integration between Slate's components. Only Slate equally handles both video and file inputs. Fluent Watch-Folders enables any size HD and SD clips and graphics to flow into Slate, without translation, even in the middle of a show. Fluent Macros play out powerful combinations of switcher moves and specific files. Fluent options drive the on-air CG from a database, or drive Slate from a GUI panel in a browser.

...Cost-effectively

- Save 70% compared to buying a conventional control room.
- Save much more on staffing. Even solo operators can create compelling video.
- Save again when upgrading to Native 3Gbps 1080p - the emerging HD standard.

Slate G Series economically upgrades to native 3G 1080p/60 for superior picture quality, superior mixing of 1080i, 720p, SD and 1080p sources, simultaneous output of all formats, and higher quality effects. Why invest in another manufacturer's legacy HD equipment that must be thrown away when upgrading to 3G 1080p?

Join over 1000 leading broadcasters, webcasters, production houses, stadiums, trucks, schools, churches and towns using Broadcast Pix systems in over 70 countries.



Slate G 100

- 1 M/E Switcher
- Multi-View Monitoring
- Clip Store, 1 channel
- Still Store, 5 channels
- Inscriber CG
- AutoAspect 16:9 & 4:3
- Optional control panel shown

Broadcast

Entertainment

Corporate

Government

Education

Faith

Mobile

Slate G 100 System

In HD/SD, SD, Analog, or Hybrid

Highly Affordable Live TV

The Slate G 100 is a complete live video production studio that is so affordable and easy to use that anyone can create great looking live television. It includes a switcher, CG, multi-view, clip store, graphic stores, aspect and format conversion. It is controlled from either the multi-view, optional control panel or optional custom keyboard. And it's upgradeable to 3G 1080p.

If you display the multi-view on a touch screen, then you can just touch the camera you want to bring it to preview. Touch the keys to add a graphic. Then just touch preview to bring composition to air. It's so easy to learn that you can quickly teach a novice to create great looking live TV.

Slate 100 shown with optional Slate 100 control panel

Optional Slate 100 Control Panel

The Slate 100 panel is a smaller version of the Slate 1000 control panel. It features a classic program/preview layout with a familiar next transition preview section for managing the three keyers. Its bank of device controls lets it control the built-in clip store, CG and graphics stores, where its PixPad corresponds to a PixPad of thumbnails on the Multi-View. And it enables a separate switcher and graphics operator.

Integration of Switcher with…

(Whether it's a 100, 1000, 2100, 3000 or 5000)

Multi-View Monitoring
- View preview, program & camera sources, plus thumbnails of keys & libraries
- Tally status, transition rates & key settings

Clip Store
- Auto-start clips and animations on transition
- Use PixPad to view clip content libraries
- See active clip in source & keyer PixButtons
- Easy animated wipes with macros

CG
- Use PixPad to view CG & select from libraries
- See active CG in source & keyer PixButtons
- Change crawl speed, even on-air

Graphic Stores
- Use PixPad to view content libraries
- Active graphic in source & keyer PixButtons
- Watch-folders streamline import of clips and graphics from editing and graphics stations
- Link chromakeys with stills for a virtual set

Camera Control
- PixPad for presets, Joystick tilt/pan/zoom

Slate G 1000 System

In HD/SD, SD, Analog, or Hybrid

The Slate G 1000 adds an innovative control panel, shown above.

Classic Switcher Layout

The grey portion of the panel has a classic layout, so traditional switcher operators will feel at home. Preview is on the bottom row, then program, then fill and destination. Program uses PixButtons so you always know what is on every source, even the exact names of specific clips or graphics, which are also shown on the Multi-View. The panel has 9 buttons per row, and you can shift for 18 total sources. A classic next transition section enables 3 keys to be in the transition, using a cut, mix or fade, wipe DVE transition and even animated alpha wipes with audio.

Pristine Keyers

All Slate switchers feature keyers that are easier to fill with compelling graphics than any other switcher, thanks to tightly integrated graphic and clip systems. Three keyers are standard, each with a DVE for up to 3 picture in pictures. And 6 keyers and DVEs are optional (option 126), which also enables an external video and key input by using two of Slate's keyers. The DVEs can be squeezed, flown in, and have borders. The content of each keyer is shown on a PixButton and on the Multi-View, so you always know what is on each key. Luma keys are also supported. A standard chromakey, for green and blue wall sets, gives you control over key softness and spill suppression. Combine multiple chromakeys (option 140) with built-in clip or still stores for virtual sets. You can even add keys to the internal auxiliary output with the PowerAux option (option 120) .

Device Controls

The black portion of the panel can be assigned to a CG store, clip store, still store, camera control, a keyer, etc. Just press its device control button and the entire bank of controls is assigned, including: a PixPad with 12 PixButtons, 3 knobs, motion controls, a 3-axis joystick and display. These enable you to instantly and intimately control the selected device.

PixButtons

Unique PixButtons have displays built into the button. Each has an icon on top showing the device that is currently assigned to it. The number next to the icon tells you the channel of clip or graphic, or which camera is being controlled. The next two lines show the exact name of the content, which is automatically put on the button from its file name. PixButtons dynamically change during the production. This illustration shows a clip called River on clip channel 1. No other switcher does this. (patented)

Slate G 2100

More SD I/O with Analog and Fail-Safe Switching

The Slate G 2100 starts with a Slate G 1000 and adds an iBoB (intelligent break-out-box) for more I/O and redundancy. It also includes a second channel of clip store.

The iBoB has 8 SD-SDI live inputs, four of which have built-in converters from analog composite, Y/C and component. Program and preview outputs are also in both SDI and analog. The iBoB also adds a downstream keyer for an external source, like an external CG. And it includes tally outputs. For the clip store it adds AES/EBU to the G 1000's analog audio. Add a Slate option card for 4 more inputs in HD, digital or analog.

iBoB on a Slate 2100

Slate G 3000

More HD/SD or SD I/O and Fail-Safe Switching

The Slate G 3000 starts with a Slate G 1000 and adds an integrated router for more I/O and redundancy, and an enhancement to your infrastructure. It also includes a second channel of clip store. Broadcast Pix software provides integrated fail-safe switching and display of all sources on the multi-view.

Slate G 3016 is available in HD/SD-SDI or SD-SDI only and includes a 16x16 router. It provides 12 live inputs, 2 channels of clips and 5 channels of graphics, and has 8 outputs for program, preview, clean feed or aux. Slate G 3032 is HD/SD-SDI or SD-SDI only, and adds the ability to select up to 18 of its inputs in each show, and has 24 outputs.

Options for Slate G 3000 (and G 5016, 5032):
- Remote aux control panel(s) 16x1 (option 18)
- Tally box for all live inputs (option 24)

16x16 router on a Slate G 3016

32x32 router on a Slate G 3032

remote aux panel

Fail-Safe On-Air

Included on all models

Broadcast Pix systems have unprecedented redundancies built in for 100% on-air performance.

Ride through a Panel Failure

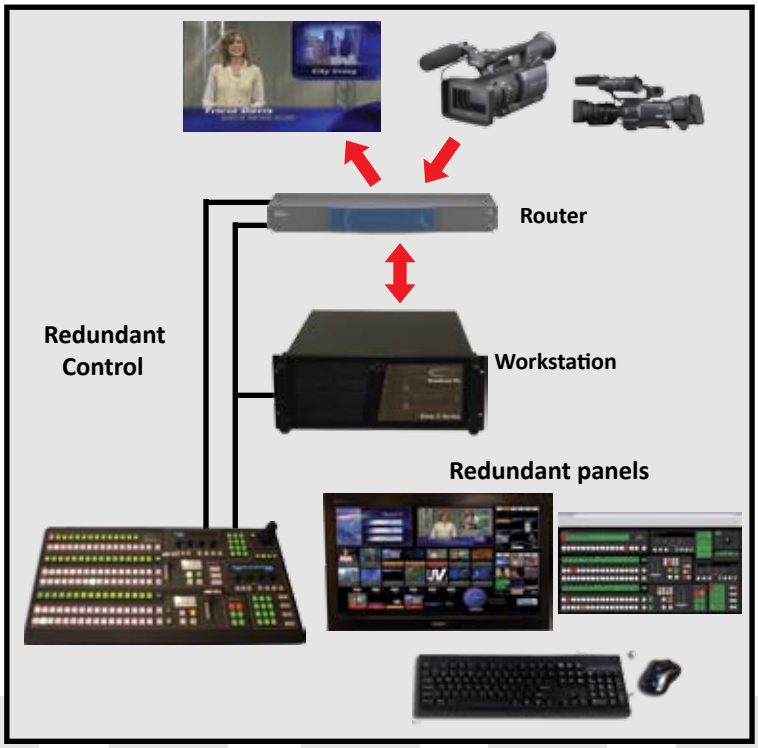
If your panel fails in the middle of a show, you can control everything on the included SoftPanel, or from the keyboard shortcuts, or from the multi-view. Other switchers provide no back-up to a panel failure.

Ride Through a Power Supply Failure

Redundant power supplies are available for all components of all systems, and are standard on the Slate G 5000 for its workstation, panel and any router. Redundant power for the panel and router is also standard on the Slate G 3000 and 2100.

Ride Through a Workstation Stopping

On the Slate G 5032, 5016, 3000 and 2100, you can still switch your cameras if the workstation should ever stop, thanks to a redundant serial connection from the panel to the router or iBoB. On the Slate G 100, 1000 and 5008, your most important camera will automatically stay on air. The Slate G 5000 also includes a back-up system drive and system recovery software, which is optional on other models (Option 230).



Unprecedented Upgradeability

With Slate, you can grow as your needs grow. A low cost Slate 100 SD can upgrade all the way to a 2 M/E Slate 5032 HD. Slate non-G systems can upgrade to the Slate G Series, and then on to 3G 1080p/60. Conventional HD switchers are not upgradeable to 3G, so someday they will need to be replaced to support the emerging 3G standard. Broadcast Pix gracefully takes you to the future.

3G 1080p

Slate G 100

Switcher, CG, clip store, multi-view, aspect conversion

SD → HD

Add 100 Control Panel

3G 1080p

Slate G 1000

Add a 1 M/E Panel

SD → HD

Slate G 2100, 3000
Add Integrated Router
for more I/O redundancy

3G 1080p

Slate G 5000

Add a 2 M/E Panel

SD → HD

Slate G 5016 or 5032
Add Integrated Router
for more I/O redundancy

Benefits of 3G 1080p

Superior Picture Quality

3G is named for its data rate, 3Gbps 1080p/60, which is twice the 1.5Gbps data rate of conventional HD.

Superior Multi-Definition Switcher

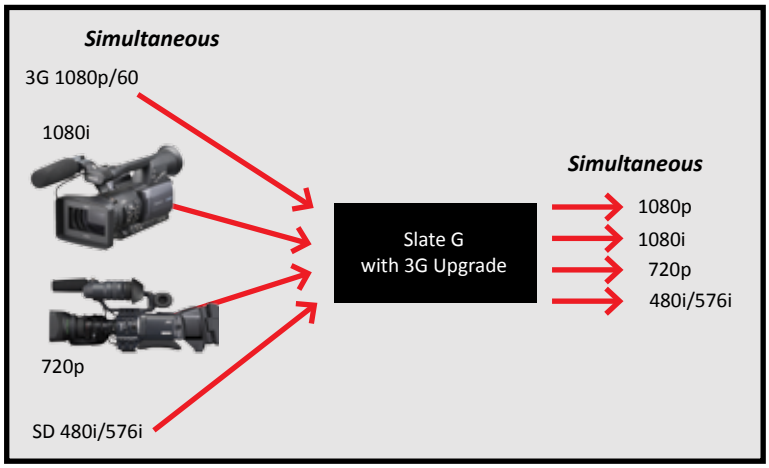
3Gbps creates a superior "multi-definition" switcher. The fundamental problem with conventional multi-def HD switchers is that they lose image quality, such as when using a mixture of 720p, 1080i, and SD cameras and other sources, or providing outputs in different formats. Upscaling 720p cameras to 1080i means the final output will not have all of its spatial resolution. In the other direction, de-interlacing 1080i sources to output 720p creates artifacts. A 3G 1080p switcher solves both of these problems, providing a superior multi-def switcher, with lossless use in both mixing and simultaneous output of 1080p, 1080i, 720p and SD.

Superior Mixing, with Progressive

1080p progressive processing is inherently less prone to motion artifacts than conventional interlaced HD switchers, and so progressive processing improves picture quality whenever the switcher processes motion, which includes transitions, picture-in-picture boxes and 4:3 / 16:9 aspect correction. Broadcast Pix is a leader in progressive processing, as all Slate switchers feature progressive processing.

An Emerging 1080p World

The most important reason to have a 1080p live video production system is that everything is going to 1080p. New TV sets are now predominantly 1080p. New routers and terminal gear are 1080p. New computers, monitors and projectors are mostly 1080p. Cameras are now emerging in 1080p. With its superior picture quality, superior effects, and the creation of a single standard that superbly handles both of the conventional HD signals (1080i and 720p) is it any wonder why 1080p is becoming so dominant?



Slate G 5000 Systems

In HD/SD, SD only, Analog, or Hybrid

2 M/E Live Integrated Production System

Sophisticated Live HD/SD Productions at a New Price Point

The Slate G 5000 is the industry's only integrated production system with 2 M/E functionality. It allows a single operator to run all aspects of a large, sophisticated 2 M/E live HD production, including complex graphics, animations, clips and effects, as well as control robotic cameras and audio mixers. It is ideal for larger studios with more cameras in broadcasting, webcasting, stadiums, events and other larger venues. Available in HD/SD or SD only, in three I/O configurations, and all are 3G 1080p upgradeable.

The Slate G 5000 has the switcher capabilities of the top, established 2 M/E production switchers on the market today. But the Slate G 5000 is unique in that it also includes and integrates all of the functionality of an entire live production control room—switcher, CG, clip store, still store, multi-view monitoring, aspect ratio and format conversion, and video routing. It creates a dramatically more cost-effective price point, far lower than any alternative HD/SD or SD live production suite, which makes powerful live video productions suddenly affordable, in both equipment and staffing.

Slate G 5000 Systems

2 M/Es for More Powerful Productions

The Slate G 5000 control panel has 16 source buttons per row, and can access 32 with a shift function. The Slate G 5008 model uses the 16 source buttons for 8 cameras, 2 clip channels, 5 graphic channels and black. The Slate G 5016 and 5032 can add more cameras with their integrated routers. The Slate G 5016 can support up to 12 cameras and 6 auxiliary outputs while the Slate G 5032 can support up to 24 cameras and 22 auxiliary outputs.

Up to 6 keyers provide pristine keying, and each includes a DVE, which can create a box. The keyers are exceptionally easy to fill from internal clip and graphic stores, or 2 keyers can be combined to support an external video and key input, such as an external CG.

The extra M/E is always available to build your next composition. It provides a handy workspace to maximize your creativity. Or use the extra M/E to create a complex composition which you can then embed in the on-air M/E. For example, add a title to a camera in M/E1, and then transition it into a DVE box and show the camera with title composition for an over the shoulder box in M/E2 on air. Or use the two M/Es independently to create two independent shows, such as a live event with two screens.

Like all Slate switchers, a five channel graphic store and HD Inscriber CG is standard, as is AutoAspect to use 16:9 and 4:3 content interchangeably. Plus Slate G 5000hh models can simultaneously produce both 16:9 and 4:3 versions of a show at the same time.

Integrated Monitoring

The Slate G 5000 multi-view shows all sources and keyers, plus dual device control library PixPads, on monitors of 1680x1050, 1366x768 or 1920x1080. Seven sources are shown in full motion. Enjoy unprecedented feedback, with tally, clip and graphic thumbnails, file names, and attributes, clocks, counters, etc. Attach up to 4 monitors and create a custom Multi-View with up to 4 Preview and Program windows and up to 3 versions of your sources all at different sizes.

Unique Broadcast Pix Capabilities

- Only 2M/E switcher that is a complete live video production system.
- Only 2M/E switcher that enables a solo operator or small team to create compelling live content.
- Only 2 M/E switcher with a real clip store with audio that plays HD ProRes, or H.264 clips, as well as QuickTime clips, and animations with key.
- Only 2 M/E switcher with a built-in HD CG.
- Only 2 M/E switcher with a standard Multi-View.

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- Only 2 M/E switcher with streamlined workflow software, like live updates from edit stations, and Integrated Macro Memories, see page 16-17.
- Fail-Safe with redundant panels, power, and auto-recovery, see page 7.
- Future Proof 3G 1080p Upgradeable, see page 4.

Slate G 5000 Models

All models include a control panel and workstation with Slate boards installed, and provide M/E2 program, preview, M/E1 program, clean feed outputs, and 6 keyers. An internal aux output can be created for an internal device like a clip store by forgoing 1 keyer. PowerAux is standard see page 18. ME/1 foreground preview may be activated by forgoing 1 keyer. Models G 5016 and 5032 add an integrated 16x16 and 32x32 router respectively, for more live inputs, many auxiliary outputs for cameras, and fail-safe switching of cameras. (Monitors not shown, but 2-4 can be added). For more info see Slate G 5000 Installation Planning Guide.

Model	8 Live inputs
5008hh	8 HD/SD
5008hd	4 HD/SD, 4 SD
5008ha	4 HD/SD, 4 analog
5008dd	8 SD
5008da	4 SD, 4 analog
5008aa	8 analog

Model	12 Live inputs
5016hh	12 HD/SD
5016dd	12 SD

Also adds:
- 6 aux outputs
- fail-safe switching

Model	24 Live Inputs
5032hh	24 HD/SD
5032dd	24 SD

Also adds:
- 22 aux outputs
- fail-safe switching

Slate G 5000 Control Panel

M/E2
On-Air Program and Preview buses with access to all Keyers.

M/E1
- Set up your next composition
- Composition keyed into M/E2
- Or control a second output with access to all Keyers

16 Buttons per row
For 16 sources, or shift to access 32 sources.

Destinations
Select a key or aux to fill and to access device controls for them.

PixButtons
Displays in the buttons show: device, file name and tally status at a glance (patented).

Two Source PixButton rows
See source contents, and press to set source's aspect ratio correction and chromakey. Trigger integrated Memories & Macros.

Table top or in a cut-out.

Slate G 5000 Control Panel

Device Control A
Intimately control any clip, graphic, memory, camera or other external device.

Device Control B
Control a keyer, FX, aux, or use Hold to access any device from Control A.

Integrated Memories
Recall and record Memories and Macros for ME 1, ME 2 or both, which recall switcher effects and specific clips, graphics and animations.

3 Axis Joystick
Use with device controls for positioning DVE Boxes, keys, and cameras.

Alpha Wipes
Modern animated transitions with your logo and audio. Also do fades, wipes, DVE pushes.

Classic Next Transition
Complete control of layers and style.

6 Universal Keyers
All keyers are available to both M/Es. PixButtons show contents.

12 Device Selectors
Instant access to any clip or graphic store and external devices.

Comprehensive Multi-View

Included on all models

Custom Layout on Wall Monitor

Monitoring

Every Slate includes on-screen monitoring of preview, program, keys and sources. Live inputs and clips have motion, and other sources use thumbnails. All live inputs are in full motion on the Slate 100 and 1000, while 7 are in full motion on larger models. They tally red on air, and orange on preview.

Unprecedented Feedback

Unlike conventional multi-views, Slate provides unprecedented feedback to the switcher operator. No other multi-view monitors the contents of keyers. Thumbnails of any channel of clip or graphics store are displayed in a PixPad that corresponds to the control panel's PixPad, and attributes are shown like whether a clip has been set to auto-start. There are clocks, a stop-watch clip counters and title safe zone overlays. And you are notified when new content arrives in Slate's watch-folders from other parts of your studio.

Use Any Size Monitor

Slate supports a wide variety of VGA monitors. Most users prefer a personal monitor for the switcher operator. You can also plug in a wall monitor: 1920x1080, 1440x900, 1366x768 or 1680x1050. You can customize your layout using powerful tools that can resize any individual monitor and align them. For Slate G 5000 monitoring see page 9.

Dual or Quad Monitors for More Operators

All Slate switchers support dual monitors, so when you want a separate graphic station just add a monitor for the CG, and open a SoftPanel, a PixPad library, and even full motion source monitors. The quad-monitor option (option 340) enables you to connect up to four monitors, as shown below.

Integration of Multi-View with…

Switcher
- Push-buttons for every source & key shown
- PixPad dynamically linked to thumbnail libraries
- Switch on the Multi-View itself with mouse or touchscreen to select keys, sources, take

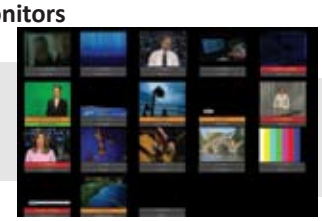
Clip Store
- View clips in full motion on monitor
- View clip libraries & tally status
- View clip time code, countdown & attributes

CG
- View CG titles in keys & libraries
- View tally status of CG titles
- Right-click a CG thumbnail to edit "on the fly"

Still Store and Logo Store
- View loaded graphics, libraries & tally status
- Right-click a still or logo thumbnail to edit "on the fly"

Switcher

Wall Monitors



Graphics

Clip Store

Included on all models

Built-in Clip Stores
All Broadcast Pix switchers have a built-in clip store, which plays HD or SD compressed clips, animations and can record and play uncompressed digital clips. On the Slate G 100 and G 1000, the clip store has one channel, and the second is optional. Both are standard on the Slate G 2100, 3000 and 5000 models, providing 500GB of clip storage, with 1TB optional. Clips can have a key channel (alpha) that can be used in keyed transitions and animations. Clips can move directly from editing systems into Slate's watch-folders, even during the middle of a show to streamline workflow, see page 16.

Easy to Use
The PixPad on the switcher panel shows the names of the clips on the PixButtons, as shown at the right. The monitor wall can show the corresponding thumbnails, and provides full motion monitoring of the active clips in both channels. Selecting a clip is as easy as pushing its PixButton, or clicking on its thumbnail. Use the motion buttons to control.

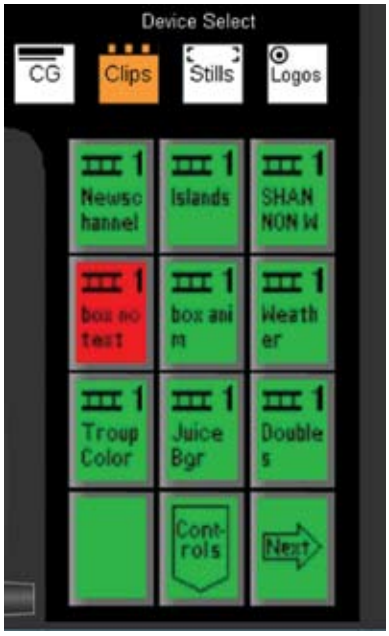
Auto-Start
The clip stores are tightly coupled to the switcher so it's easy for a single operator to add lead-ins, bumpers, or any clips. Any clip or animation can be set to automatically start playing at the instant it is taken to air. No more careful cueing. No need for a second operator to insure your clips start when they are supposed to. Just press the Controls button on the clip PixPad and the clip modifiers appears, and set it to Auto-Start. Also, set it to auto-stop when it comes off air, auto rewind, mark-in, mark-out, loop, or aspect ratio.

HD, SD or Uncompressed Clips
Depending on your compression settings, play .mov files, including up to 8 hours of HD Apple ProRes clips, over 200 hours of HD H.264 clips or SD QuickTime clips (DV, DVCPRO or H.264 AVC). Record and play up to 15 hours of uncompressed clips from any live input. Standard removable media drives facilitate handling large files, and more removable drives are optional.

Animations
The clip store can instantly access and play spectacular animations that are created on the built-in Inscriber CG, or imported as sequences from popular animation systems, including Adobe Aftereffects, Artbeats, Apple, Digital Juice, Avid, Motion, etc. Use animations for backgrounds, titles, logos, and transitions, even with audio. Other switchers either have no support for animations, or limit them in size and loading speed.

Audio
All clips can have audio, with 6 XLR connectors for analog stereo audio: one pair for recording onto the clip store, and two pairs for playing out two channels to send to your mixer. All clip stores also accept and play out audio embedded in the SD-SDI stream.

Thumbnails PixPad

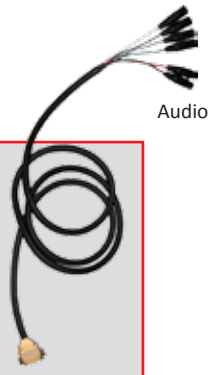


PixButtons on PixPad

Clip modifiers

Play, pause, rewind, scrub and timecode

Clip counter on Multi-View


Audio

Integration of Clip Store with…

Switcher
- On transition to air, auto-start clips & animations
- Use PixPad to view clip content libraries
- See active clip in source & keyer PixButtons

Multi-View Monitoring
- View clips in full motion on monitor
- View clip libraries & tally status
- View clip timecode, countdown & attributes

CG
- Create animated titles in CG, then play on the Clip Store
- Use Clip Store to add an animated background to a title

Still Store and Logo Store
- Take logo into CG, animate it, & play out on clip store

Inscriber Character Generator

Included on all models

Broadcast Quality HD Graphics

Create broadcast quality graphics with the Inscriber TitleMotion character generator (CG) that is included in every Broadcast Pix switcher. Inscriber from Harris is used worldwide to create stunning graphics in the most demanding broadcast applications. Enjoy superb anti aliased resolution of less than 16nS, sub pixel scrolling, fine transparency, soft edge, shadows and glows, and animated titles.

Easy to Use

It has never been so easy to add great graphics to your productions. The CG includes templates that make novices look like pros. Just select one from the drop down menu, type in your text and save. Or create your own templates with Inscriber's powerful composition tools, or import one from Photoshop or another system.

On Air Updates

While a production is on-air you can right-click an existing graphic to edit it on the fly, or add new ones via watch-folders see page 16. Great for a surprise guest title, sports or a game show.

Create Logos, Stills & Animations

TitleMotion is a complete graphics system. Import digital photos and a wide variety of graphic formats, including .tga, .bmp, .gif, .jpg, .tif, and .png. In minutes you can grab a logo off a web site, add a shadow and animate it for a beautiful spinning logo. Create backgrounds and over the shoulder graphics for the still store.

Integration of CG with...

Switcher
- Use PixPad to view CG content libraries
- See active CG title in source & keyer PixButtons
- On transition to air, auto-start rolls and crawls
- Change crawl speed on-air with a knob
- Reposition any keyed graphic with a DVE

Multi-View Monitoring
- View CG titles in keys & libraries, with tally status
- Right-click on a CG thumbnail to edit "on the fly"

Clip Store
- Create animated titles & play as a clip

Still Store and Logo Store
- CG creates a still or logo

External Database
- CG Connect option couples an external database to the on-air CG, such as athletes' statistics & pictures

Still Store

Standard on all models

Select stills or logos to assign the device controls to it. And like clips and CGs, the names of the stills and logos show on the PixButtons and their thumbnails show on the monitor wall. Use five channels of stills and logos. Import a wide variety of HD and SD formats: .tga, .bmp, .gif, .jpg, .tif, and .png. Move stills over the network from an edit station, see page 17. Import pictures from a digital camera, download them from the Internet, or bring them in from the Inscriber CG, or from other graphics packages like Photoshop.

Integration of Still Stores & Logos with...

Switcher
- Use PixPad to see still & logo content libraries & select from them
- Active graphics in source & keyer PixButtons
- Couple stills & chromakeys for a virtual set

Multi-View Monitoring
- View loaded graphics, libraries & tally
- Right-click on a thumbnail to edit a still or logo "on the fly"

CG
- Create stills & logos in CG, including importing a wide variety of graphic formats

Clip Store
- Animate a logo in the CG, & play it out on the clip store

AutoAspect 16:9 and 4:3

Included on all models

Whether you are creating a widescreen 16:9 show, or a traditional 4:3 show, AutoAspect solves the many challenges of mixing 4:3 and 16:9 content in the same production.

Now 16:9 and 4:3 inputs, clips and graphics can be used interchangeably and mixed together in the same live production, while maintaining the native aspect ratio of each element. Conventional switchers can only stretch video when crossing aspect ratios, causing people to look too wide or too thin. Slate enables each input to be set to one of 4 aspect treatments: box, crop, 14:9 or none (anamorphic). And each clip and graphic in the libraries can be separately treated.

On some HD models you can also simultaneously output 16:9 and 4:3 versions of the same 16:9 show. This is included on all Slate G 3000 HD, 5016 HD and 5032 HD models, and on any Slate G 100 HD, 1000 HD or 5008 HD models on which a second HD I/O board is installed.

Output 16:9 and 4:3 simultaneously

Camera Control

Optional on all models

Add camera control for the ultimate “one man band”. Use the Panel’s PixPad to select the camera you wish to control and a preset camera position. Manually control with the 3-axis joystick for tilt, pan and zoom. Push it a little to move slowly, or harder to move faster. Knobs control focus and iris. CCU (Camera Control Unit) functions, like white balance, can also be accessed .

Sony Camera Control Option
Control up to 9 Sony cameras with 6 preset positions per camera. Option 800 includes software and a serial cable to connect to the VISCA connector on the first camera for a 232 daisy chain. Option 811 adds a serial to 422 converter to increase camera runs from 60 feet (18 meters) to 4,000 feet (1,200 meters). Option 814 and 818 have 4 or 8 serial ports for wiring in a star configuration.

Panasonic Camera Control Option
Control up to 12 Panasonic cameras with 99 preset positions per camera. Option 803 includes Broadcast Pix software. Option 811 is a serial to 422 converter. Option 814 and 818 has 4 or 8 serial ports for multi-camera configurations.

Hitachi Camera Control Option
Control up to 9 Hitachi cameras using their Eagle pan/tilt heads. Control up to 31 preset positions on each camera. Option 801 includes Broadcast Pix software and a serial to 485 converter.

Panasonic Camera Control

Sony Camera Control

Hitachi Camera Control

Presets and CCU controls on the PixPad

Integration of Camera Control with…

Switcher
- Use joystick to control tilt, pan & zoom
- Use knobs for focus, iris & CCU settings
- Use PixPad for preset positions & CCU settings

Multi-View Monitoring
- View cameras in full motion

CG with Integrated Memories
- Use a Macros Memory to automatically recall a preset position & fade on its title with one button

Audio Follow

Optional on all models, option 880

Extend the “one-man-band” to audio. Audio-Follow-Video software enables an audio mixer to automatically follow all action on the Slate switcher. Unlike conventional switchers that utilize antiquated audio protocols, Broadcast Pix uses MIDI, so it works with many audio mixers, and is more powerful and more affordable. As each video source goes to air it triggers commands on the mixer, or even an entire scene memory including volume, fade, pan, echo, reverb, etc. Includes USB to MIDI adapter.

Integration of Audio Control with…

Switcher
- Tie each video source to one or more audio sources or a memory

Clip Store
- Tie each channel to the mixer

Fluent Workflow Software

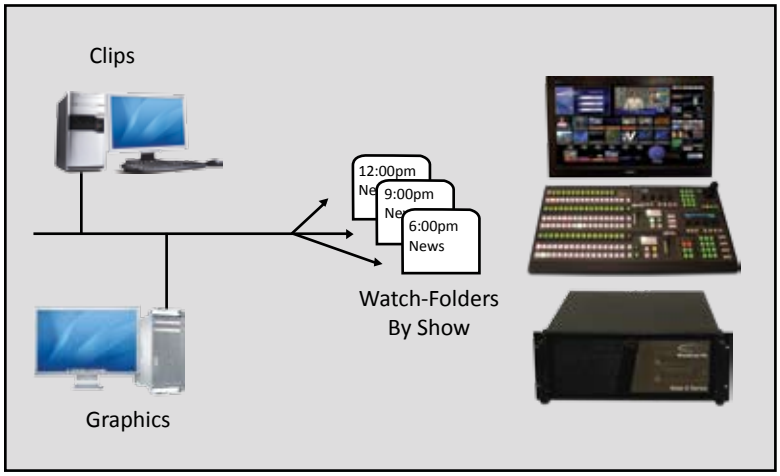
Fluent Workflow Software exploits Slate's unique video and file architecture to improve integration bewteen Slate's components and with the rest of the studio. Fluent enables high impact video to be created very cost-effectively.

Fluent Watch-Folders

Included on all models

Unlike conventional switchers that take only video inputs, Slate systems can input video and files. This greatly streamlines live production workflow, by enabling clips and graphics to be sent over a network from edit stations or graphics systems to the Slate system, even during the middle of a live production. No need to wait to record a clip onto a server. No need to have a separate clip operator cueing the clip. The clip just appears on Slate's multi-view and its name appears on the control panel's PixButton, and it can be set to auto-start upon going to air.

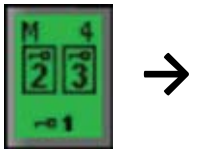
Slate uses innovative Watch-Folders, which automatically adds content to your show. For example, you might have one Watch-Folder for the 6 o'clock news program, and one for the 9 o'clock. Editors simply send the content over a network into the correct Watch-Folder and it is automatically added to that show, even late breaking news that comes in during a news cast. Data flows in without taking time to do file conversion, as Slate handles many HD and SD native formats. With more than 1 TB of storage capacity, Slate accepts large clip files.



Memories

Included on all models

Like any professional switcher, Slate has an extensive memory system; but unlike conventional switchers these memories can recall switcher parameters AND the exact content of graphics and clips and their attributes. For example, a single memory can recall a dual box, as shown here, including the key settings for each DVE box, an animated background from the clip store and a crawl from the CG. The recall also can remember if the animation and crawl are set to auto-start when taken to air.



PixButton on the Mem PixPad

Dual Box Memory

Fluent Macros

Included on all models

Powerful Macros recall a sequence of moves, which can include every switcher move as well all the integrated devices. Fluent Macros even remember file names, while conventional switchers cannot remember names of any graphics or clips. For example, with one press you can select a camera on preview, change its preset position, bring it to air, fade on its specific title from the CG store, and fade off the title. Record Macros by pressing the sequence of desired buttons, and then fine tune them on the comprehensive graphical user interface shown.

Macro Creator makes editing easy.

Animated Transitions

Included on all models

Switchers are known for great transitions. Slate can not only do fades, wipes, and DVE moves, they also do the latest animated transitions by using Macros. These provide the contemporary look that formerly required a separate box. Customize them with your own logo, using any popular animation package. Your production will look just as polished as the richest network production. They can be silent, or can even add audio for a swoosh, or other sound effect.

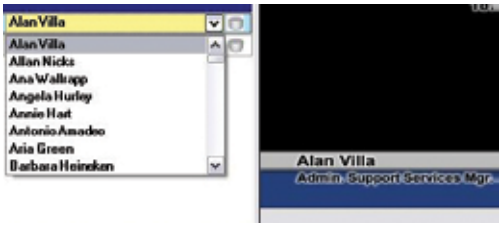
Teams

Slate is exceptional for solo use, and also gracefully expands to team use. Some productions, like live sports, have so much spontaneous action that a separate graphics operator is needed. All Slate systems support two monitors. The switcher operator can use one monitor for the multi-view with panel, and the graphics operator can use the other with keyboard and mouse. For more team members add the quad monitor option, and more SoftPanels which can open in a browser on a PC or Mac. The panels can be independent so one person can be on a clip store, while another is on a still store, another on a CG, etc. Operators can be anywhere on the network – in the studio, in the back room, even thousands of miles away. A 2 M/E SoftPanel can even be added to a 1 M/E system for a compact affordable 2 M/E system (option 105).

CG Connect

Optional on all models, option 170

CG Connect links an Inscriber CG template to a database. Just create the template you want, and tie its elements to a database on the Slate system, or to another computer on the network. Then select the data you want and it will automatically and instantly fill the CG page, even when on-air. Now when you have a database of names and titles, you do not have to re-key them. It's also great in all live sports applications, to keep score, or select a player and get all his or her stats and related graphics. You can even insert a clock into a CG page, and it will update on-air automatically. CG Connect works with XML or Microsoft Access databases (.mdb).



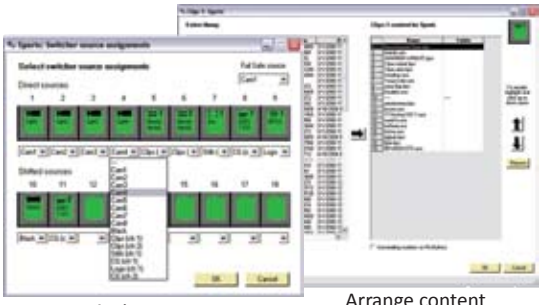
Automatically fill a CG template from a database. Just click on the name, and both the name and title will fill, even on air.

CG Connect is great for all sports, and can do scores, and graphics

PixMaster

Included on all models

Slate switchers include a powerful pre-production tool called PixMaster, which enables a show to be rapidly prepared. PixMaster saves time compared to conventional studios where each device must be prepared independently. Assign the sources on the switcher. Open the content library for each source, select the graphics and clips for the show, and arrange their order. Import graphics, and resize if necessary. Manage Memories. Add devices to the show. Print out a listing of all show content. And PixMaster can even be used during a show to change on the fly.



Assign sources

Arrange content

Shared Router

Optional on Slate G 3032 and 5032, option 150

Two systems can share a central router by adding a Slate G 1000 or 100 to a Slate G 3000 or 5032 (as shown) switcher, and adding optional software (option 150). For larger facilities, this greatly simplifies wiring and lowers cost.

This workflow configuration provides separate control points with a common group of cameras and other sources, for example for simultaneously producing TV and internet shows. These kinds of multi-mode productions typically create different size shows, which require different graphics approaches. Other examples are TV and projection, and Internet and mobile, and TV and mobile (shown).

Slate Specifications

1080p 3G Upgradeable

Video
- HD I/O: 720p/59.94, 720p/50, 1080i/59.94, 1080i/50
- SD I/O: SMPTE 259M
- DVI I/O: DVI-D, DVI-I, VGA
- 1080p output only via HDMI cable with DVI option
- Slate G processing: component 10-bit 576p/486p
- Analog I/O has 10-bit conversion
- 60Hz(NTSC) or 50Hz(PAL) switchable
- 4:3 or 16:9 switchable
- Requires analog reference

Low Delay (Milliseconds for 60Hz/50Hz)
- SD with genlocked cameras, even inside a DVE box with AutoAspect — 33 ms / 40 ms
- HD with genlocked cameras, even inside a DVE box with AutoAspect — 100 ms / 120ms
- Added by an asynchronous source — +33 ms / 40ms

Clip Audio
- Analog stereo audio I/O, and embedded in the SD-SDI stream SMPTE 272M (2100 adds AES/EBU digital)

CG
- Anti aliased resolution <16nS
- Import formats: .psd, .tga, .bmp, .gif, .jpg, .tif, and .png

Workstation
- Software: Broadcast Pix, Inscriber TitleMotion CG, Windows XP
- Hardware: Slate video boards, 2 disks with removable media drive(s), r/w DVD/CD, keyboard, mouse
- Requires Monitor: (1680x1050 or 1280x1024 on 1 M/E models)
- Support second monitor: 1920x1080, 1680x1050, 1280x1024 or 1366x768

Weight	100	1000	2100	3000	5000
• Lbs	48	56	68	65	75
• Kg	22	25	31	30	34
Power (watts)	400	450	500	500	600

Dimensions

Workstation (on all models)
- rack units 4
- inches 19x20.5x7
- centimeters 48x52x18

100 Control Panel
- inches 14x9.2x2
- centimeters 35.6x23.4x5

1M/E Panel (on G 1000, 2100, 3000)
- inches 8.5x12.5x5.5
- centimeters 47x32x14

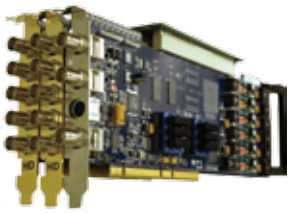
2M/E Panel (on G 5000)
- inches 15.5x31x8
- centimeters 39x79x20

iBoB (on G 2100)
- rack units 6
- inches 19x10.5x3
- centimeters 48x27x8

Routers (on G 3000, 5016, 5032)
- 16x16 Router 1 RU
- 32x32 Router 2 RU

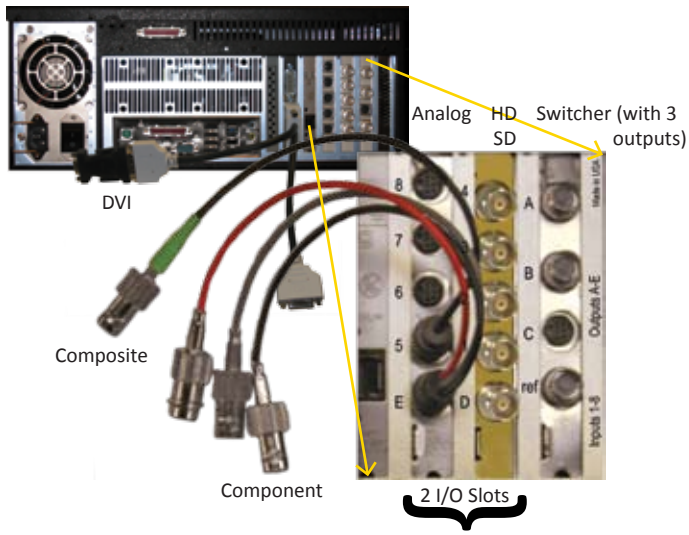
Slate Video I/O

Slate Video Boards



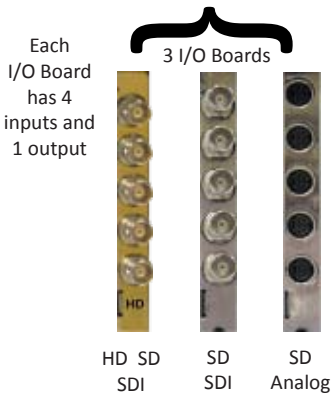
At the heart of every Slate system is a set of video processing boards made by Broadcast Pix. These use similar components to conventional switchers, but are housed in a workstation to provide tight integration with clips and graphics on the disk drives, and with networking and communications. All layering and keying is done on these boards, which is one reason why Slate is so reliable.

The switcher board has 2 SDI outputs, 1 analog output and an analog reference input. There are 2 slots for I/O boards in any combination of HD/SD SDI, SD SDI or analog boards, each of which adds 4 inputs and 1 output. SDI connections are BNCs, while analog connections accept and use breakouts to BNCs for composite and component. Sources can be synchronous (genlocked) and /or asynchronous, to support a wide range of inputs from broadcast cameras to DVD players. Outputs can be program, preview, auxiliary or clean feed (or ME2 outputs in 5000).



Slate G 100, 1000, and 5008
Slate 100 and 1000 systems include 1 I/O board, so they have 4 live inputs and 4 total outputs. A second I/O board may be added as an option to increase to 8 inputs and 5 outputs. For example, at the right is a system with an HD/SD SDI board and an analog board. Slate 5008 models have 2 I/O boards.

Slate G 5032, 5016, 3000 and 2100
As described on page 6 and 9, these add an external I/O matrix (either a router or iBoB) to provide more I/O and fail-safe switching. Cameras and other external sources are connected to the matrix and fed into Slate, and outputs return through the matrix. Slate 3000 and 5000 have 2 I/O boards. Slate 2100 has 1 standard, and can add a second as an option.



Optional DVI I/O, option 50
Slate HD models can add a DVI board for DVI and VGA I/O. This enables computers to be inputs to Slate, and the output to feed a projector. DVI to VGA adapters are included. Add a DVI to HMDI cable for 1080p output, option 51. On Slate systems with one HD board, the DVI option can convert one of the HD inputs and the HD output to DVI. Slate systems with 2 HD boards, may have 2 DVI I/O's.

Optional PowerAux Output, option 120
PowerAux enables Slate switchers to produce an advanced auxiliary output with keyers applied. This is ideal for producing two simultaneous shows from the same switcher for two different audiences, or with two different brandings.

Options

● - included ○ - optional

100	1000	2100	3000	5000	Part #		
						Switcher	
○	○	○	○	●	120	PowerAux	Enables 3 keys (6 keys with option 126) to be added to an Aux output
○	○	○	○	●	126	Keys 4, 5 & 6	Adds 3 more keyers (key 4, 5 & 6), each with a DVE
○	○	○	○	○	28	Tally Box 8 and GPI box	Tally output for 8 live sources, plus 8 GPI inputs
			○	○	24	Tally Box 24	Tally output for all live sources, for Slate 3000 and Slate 5000
○	○	○	○	○	140	More Advanced Keys	Increases standard 1 chromakey/luma key to 8, for creating a virtual set
○	○	○	○		940	3G Upgrade 1 M/E	Upgrade to 3G 1080p processing & I/O, Slate G 100, 1000, 2100, 3000*
				○	941	3G Upgrade 2 M/E	Upgrade to 3G 1080p processing & I/O, Slate G 5000*
							*call for availability
						Panels	
○	○	○	○	○	5	Custom Keyboard	Upgrade standard keyboard to one lettered with shortcuts
○	○	○	○	○	8	Slate 100 Control Panel	Broadcast Pix physical control panel for a Slate 100
○	●	●	●	○	10	1 M/E Control Panel	Broadcast Pix physical control panel on a Slate 1000, 2100 & 3000
○	○	○	○	●	12	2 M/E Control Panel	Broadcast Pix physical control panel on a Slate 5000
	○	●	●	●	201	Redundant Power	Redundant Power for 1000 physical control panel (option 10)
			○	○	18	Remote Aux Panel	16x1 Aux Panel, 1RU, for Slate G 3000, 5016 or 5032
						Video I/O	Note: can add only one of 47, 48 or 49 to a G 100, 1000 or 2100.
○	○	○			47	More Analog I/O	4 analog inputs & 1 output (composite, Y/C, YUV) – break-outs included
○	○	○			48	More Digital I/O	4 SD SDI inputs and 1 SD SDI output
○	○	○			49	More HD SD I/O	4 HD/SD SDI inputs and 1 output (1080i, 720p, SD)
●	●	●	●	●	46	YUV / composite cable	1 YUV/composite break-out-cable to BNCs
○	○	○	○	○	50	DVI I/O	Up to 2 DVI-I inputs and 2 outputs (VGA adapters incl.) Requires HD I/O
○	○	○	○	○	51	1080p HDMI Output cable	DVI to 1080p HDMI output cable. Requires DVI I/O
						Clip Store	
○	○	●	●	●	301	Clip channel 2	Adds 2nd channel of clips, increase storage to up to 500GB
○	○	○	○	○	318	More Clip Storage	Up to 1TB of clip storage - Requires 301
						Fluent Workflow Software	
○	○	○	○	○	170	CG Connect	Connects on-air CG to an external XML and .MBD database
○	○	○	○	○	160	Another Inscriber CG	Additional Inscriber TitleMotion Pro to create graphics on another PC
●	●	○	○	○	100	SoftPanel	A panel license for another SoftPanel
○	○	●	●	●	103	3 SoftPanels	3 more panel licenses for more SoftPanels
○	○	○	○	●	105	2 M/E SoftPanel	2 M/E SoftPanel controls 2nd M/E (incl. Opt 126)
○	○	○	○	○	150	Shared Router Control	Software for 2 Slate switchers sharing a 32x32 router
○	○	○	○	○	340	Quad Monitors	Upgrade dual monitor output to quad monitors
						External Device Control	
○	○	○	○	○	880	Audio Follow Video	Software to control audio mixers, USB-MIDI adapter
○	○	○	○	○	800	Sony Camera Control	Control up to 9 Sony cameras (VISCA), RS232 cable
○	○	○	○	○	801	Hitachi Camera Control	Control up to 9 Hitachi cameras: software and serial to RS485
○	○	○	○	○	802	Panasonic Camera Control	Control up to 12 Panasonic cameras: software only - Requires 811, 814 or 818
○	○	○	○	○	811	422 converter - 1	232 to 422 converter for 1 camera - Requires 800 or 802
○	○	○	○	○	814	422 star config - 4	USB to RS422 box for 4 cameras - Requires 800 or 802
○	○	○	○	○	818	422 star config - 8	USB to RS422 box for 8 cameras - Requires 800 or 802
○	○	○	○	○	823	DDR Control	VDCP Control a 360 Systems or Harris Nexio servers
						Workstation	
○	○	○	○	●	210	Premium Workstation	Adds redundant power, recovery system, and rack rails
○	○	○	○	●	230	Recovery System	Redundant system drive with auto-back up and cd
○	○	○	○	●	240	Rack Rails	Sliding rack rails for workstation
			○	○	250	Router accessory pack	(3) 6' Slate to Router BNC cable bundles of 4
						Services	
○	○	○	○	○	601	On site Training - 1 day	First Day. Includes expenses, with 4 week's notice
○	○	○	○	○	602	On site Training - more	Each additional day, to extend the training session in Option 601
○	○	○	○	○	605	Commissioning	1 day of Broadcast Pix system commissioning
○	○	○	○	○	621-30	Extended Warranty	Additional 1 year of parts and labor
○	○	○	○	○	680	Owner's Manual	Additional hard-copy of owner's manual, 1 included

1080p 3G Upgradeable

Create Compelling Live Video

Cost-effectively

Files
HD Clips: ProRes, H.264
SD Clips: DV, DVCPRO, H.264
Graphics: .tga, .jpg, .png, .bmp...

Data
.xml, .mdb

Video
Standard: 1080i, 720p, SD
Optional: DVI, VGA, analog

Slate
Integrated Production System

Watch-Folders

CG Connect

Clip Store
Graphic Store

Macros

Switcher

Multi-View

CG

Video
Standard: 1080i, 720p, SD, analog
Optional: DVI, VGA
Standard: 16:9 and 4:3

Fluent

Streamlines Production Workflow

Broadcast Pix
3 Federal St. Billerica, Massachusetts, 01821 USA
1-978-600-1100
or 1-866-914-9484

Americas Region:

• Americas Regional HQ	Las Vegas, NV	1-415-310-2646
• Northeast US and Canada	Boston, MA	1-978-600-1104
• Midwest US and Canada	Chicago, IL	1-630-961-7470
• Southeast US	Atlanta, GA	1-404-391-2320
• South Central US and Mexico	Austin, TX	1-512-658-5193
• Western US and Canada	San Francisco, CA	1-415-450-8388

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Broadcast Pix

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